This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A combination voltage converter circuit for performing multiple operating functions, the combination circuit comprising:

an RF coil (L1') having a first end (72'), a second end (85), and a tap point (85');

a diode (D1) connected between the first end (72') of the RF coil (L1') and an output node (75');

a first capacitor (C1) connected between the output node (75') and ground potential (87);

a first transistor switch (M1') connected between the second end (85) of the coil (L1') and a primary power source (VS);

a second transistor switch (M2) connected between the tap point (85) and the primary power source (VS);

a second diode (D2) connected between the tap point (85) and ground potential (87);

a data amplifier (U1) having an input and an output;

a third diode (D3) connected between the first end (72') of the RF coil (L1') and the input of the data amplifier (U1);

a third transistor switch (M3) connected between the input of the data amplifier (U1) and ground potential (87);

a tuning capacitor (C3') having a first side connected to the first end (72') of the RF coil (L1') and a second side connected to the tap point (85') through a fourth transistor switch (M4); and

a fifth transistor switch (M5) connected between the tap point (85') and ground potential (87).

Claim 2 (original): The combination circuit of Claim 1, wherein the combination circuit is configured such that,

when transistor switches M2, M4 and M5 are turned OFF, and transistor switch M1' is turned ON, and transistor switch M3 is modulated with a pulse-width modulated (PWM) signal, a voltage is generated at the output node (75') that is stepped up from the voltage of the primary power source (VS); and

when transistor switches M1', M3, M4 and M5 are turned OFF, and transistor switch M2 is modulated with a PWM signal, a voltage is generated at the output node (75') that is stepped down from VS; and

when transistor switches M1', M2 and M3 are turned OFF, and transistor switches M4 and M5 are turned ON, the combination circuit operates in an energy receive mode wherein RF energy received through the RF coil (L1') is rectified and stored in capacitor C1, and also operates in a data receive mode wherein data modulating the received RF energy is demodulated through diode D3 and recoverable as data at the output of amplifier U1; and

when transistor switches M1', M4 and M5 are turned ON, transistor switch M2 is turned OFF, and transistor switch M3 is modulated with data, the combination circuit operates in a data transmit mode wherein the data modulating transistor switch M3 is transmitted from the RF coil (L1').

Claim 3 (original): The combination circuit of Claim 2, wherein the combination circuit is configured for use in an implantable medical device.

Claim 4 (original): The combination circuit of Claim 3, wherein the tap point (85') on the RF coil (L1') divides the coil into N1 turns between the tap point and the first end (72') of the coil, and N2 turns between the tap point and the second end (85) of the coil, and wherein the inductance value of the RF coil is between 1 μH and 1000 μH.

Claim 5 (original): The combination circuit of Claim 3, wherein the number of turns N1 is between about 1 and 1000 turns and the number of turns N2 is between about 1 and 1000 turns.

Claim 6 (cancelled).

Claim 7 (currently amended): A combination voltage converter circuit for performing multiple operating functions, the combination circuit comprising:

a coil (L1') having a first end (72'), a second end (85), and a tap point (85'), wherein the tap point (85') on the coil (L1') divides the coil into N1 turns between the tap point and the first end (72') of the coil (L1'), and N2 turns between the tap point and the second end (85) of the coil; and

circuit means, including switches, for implementing operating modes and switching between operating modes of the combination circuit;

wherein the operating modes include (i) an energy receive mode wherein energy is received inductively through the coil (L1'), (ii) a voltage step up conversion mode wherein a voltage step up conversion occurs using the coil (L1'), and (iii) a voltage step down conversion mode wherein a voltage step down conversion occurs using the coil (L1');

wherein the coil is coupled to the circuit means;

~~The combination circuit of Claim 6,~~

wherein the number of turns N1 is between about 1 and 1000 turns and the number of turns N2 is between about 1 and 1000 turns; and

wherein the inductance value of the coil (L1') is between about 1 μH and 1000 μH.

Claim 8 (currently amended): The combination circuit of Claim 7, wherein, in the voltage step down conversion ~~operating~~ mode, only the N1 part of the coil L1' is used.

Claim 9 (cancelled).

Claim 10 (currently amended): A combination voltage converter circuit for performing multiple operating functions, the combination circuit comprising:

a coil having a first end, a second end, and a tap point, wherein the tap point on the coil divides the coil into N1 turns between the tap point and the first end of the coil, and N2 turns between the tap point and the second end of the coil; and

circuit means, including switches, for implementing operating modes and switching between operating modes of the combination circuit;

wherein the coil is coupled to the circuit means;

wherein the operating modes include four modes: (i) an energy and data receive mode wherein energy is received inductively through the coil and, concurrently, data is received through the coil; (ii) a voltage step up conversion mode wherein a voltage step up conversion occurs using the coil; (iii) a voltage step down conversion mode wherein a voltage step down conversion occurs using the coil; and (iv) a data transmit mode wherein data is transmitted through the coil;

~~The combination circuit of Claim 9,~~

wherein the switching means comprises first ~~(M1')~~, second ~~(M2)~~, third ~~(M3)~~, fourth ~~(M4)~~ and fifth ~~(M5)~~ transistor switches, which switches are selectably turned on, turned off, or modulated in various switch combinations to configure the combination circuit to at least one of the four operating modes; and

wherein the selection of the operating modes is implemented through a time multiplexing scheme.

Claim 11 (currently amended): The combination circuit of Claim 10, wherein the circuit means includes a ~~pulsewidth~~ pulse width modulation (PWM) circuit for controlling one of the transistor switches, which PWM circuit is used for voltage step up conversion or voltage step down conversion.

Claim 12 (currently amended): The combination circuit of Claim 10, wherein the circuit means includes an ON/OFF modulation (OOM) low power circuit for controlling one of

the transistor switches, which OOM circuit is used for voltage step up conversion or voltage step down conversion.

Claim 13 (currently amended): The combination circuit of Claim 10,

wherein the number of turns N1 is between about 1 and 1000 turns and the number of turns N2 is between about 1 and 1000 turns; and

wherein the inductance value of the coil ~~(L1')~~ is between about 1 μH and 1000 μH.

Claim 14 (currently amended): The combination circuit of Claim 13, wherein, in the voltage step down conversion ~~operating~~ mode, only the N1 part of the coil ~~L1'~~ is used.

Claim 15 (currently amended): The combination circuit of Claim 13, wherein, in the energy receive and data receive ~~operating~~ modes, only the N1 part of the coil ~~L1'~~ is used.

Claims 16-20 (cancelled).